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SMITHSONIAN MISCELLANEOUS COLLECTIONS.

— 478 —

CATALOGUE OF PUBLICATIONS

OF THE

SMITHSONIAN INSTITUTION,

(1846 – 1882,)

WITH AN

ALPHABETICAL INDEX OF ARTICLES

IN THE

SMITHSONIAN CONTRIBUTIONS TO KNOWLEDGE, MISCELLANEOUS COLLECTIONS, ANNUAL REPORTS, BULLETINS AND PROCEEDINGS
OF THE U. S. NATIONAL MUSEUM, AND REPORT
OF THE BUREAU OF ETHNOLOGY.

BY WILLIAM J. RHEES,

CHIEF CLERK OF THE INSTITUTION.



WASHINGTON:
SMITHSONIAN INSTITUTION.

1882.

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1832

JUDD & DETWEILER, PRINTERS,
WASHINGTON, D. C.

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PREFACE.

The present catalogue embraces all the articles published by the Smithsonian Institution from its organization in 1846 to the first of July, 1882, a period of thirty-six years.

At the beginning nothing was issued but pamphlets explanatory of the plan of the Institution and brief annual reports of the proceedings of the Board of Regents, indicated in the catalogue by the letters A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, Q. An elaborate work, (P in the catalogue), by ROBERT DALE OWEN, on public architecture, with special reference to the plans of the Smithsonian Institution, prepared on behalf of the Building Committee, was printed at the expense of the Institution in 1849, but did not form part of the regular series organized by the Secretary of the Institution, Prof. Henry.

1. SMITHSONIAN CONTRIBUTIONS TO KNOWLEDGE.

The series entitled "Smithsonian Contributions to Knowledge," in quarto form, was commenced in 1848 by the publication of Squier and Davis' *Ancient Monuments of the Mississippi Valley*. The following "Advertisement" of the first volume, prepared by Prof. Henry, has been inserted in every succeeding volume to indicate the character and design of the series:

"This volume is intended to form the first of a series of volumes, consisting of original memoirs on different branches of knowledge published at the expense and under the direction of the Smithsonian Institution. The publication of this series forms part of a general plan adopted for carrying into effect the benevolent intentions of James Smithson, Esq., of England. This gentleman left his property in trust to the United States of America to found at Washington an institution which should bear his own name, and have for its objects 'the *increase and diffusion* of knowledge among men.' This trust was accepted by the Government of the United States, and an act of Congress was passed August 10, 1846, constituting the President and the other principal executive officers of the General Government, the Chief Justice of the Supreme Court, the Mayor of Washington, and such other persons as they might elect honorary members, an establishment under the name of the 'Smithsonian Institution, for the increase and diffusion of knowledge among

men.' The members and honorary members of this establishment are to hold stated and special meetings for the supervision of the affairs of the Institution and for the advice and instruction of a Board of Regents, to whom the financial and other affairs are entrusted.

"The Board of Regents consists of three members *ex-officio* of the establishment, namely, the Vice-President of the United States, the Chief Justice of the Supreme Court, and the Mayor of Washington, together with twelve other members, three of whom are appointed by the Senate from its own body, three by the House of Representatives from its members, and six citizens appointed by a joint resolution of both houses. To this Board is given the power of electing a Secretary and other officers, for conducting the active operations of the Institution.

"To carry into effect the purposes of the testator, the plan of organization should evidently embrace two objects, one, the increase of knowledge by the addition of new truths to the existing stock; the other, the diffusion of knowledge thus increased among men. No restriction is made in favor of any kind of knowledge, and hence each branch is entitled to and should receive a share of attention.

"The act of Congress, establishing the Institution, directs, as part of the plan of organization, the formation of a Library, a Museum, and a Gallery of Art, together with provisions for physical research and popular lectures, while it leaves to the Regents the power of adopting such other parts of an organization as they may deem best suited to promote the objects of the bequest.

"After much deliberation, the Regents resolved to divide the annual income, thirty thousand nine hundred and fifty dollars, into two equal parts, one part to be devoted to the increase and diffusion of knowledge by means of original research and publications, the other half of the income to be applied in accordance with the requirements of the act of Congress to the gradual formation of a Library, a Museum, and a Gallery of Art."

(The Programme of Organization, adopted December 8, 1847, follows.)

"In accordance with the rules adopted in the Programme of Organization, each memoir in this volume has been favorably reported on by a Commission appointed for its examination. It is however, impossible, in most cases, to verify the statements of an author; and, therefore, neither the Commission nor the Institution can be responsible for more than the general character of a memoir."

The total number of papers published in the 23 volumes of "Contributions" is 119, with an aggregate of 12,456 pages, 1,567 wood cuts, 523 plates, and 16 maps, each volume averaging 541½ pages.

2. MISCELLANEOUS COLLECTIONS.

In the year 1862, another series was instituted, entitled "Smithsonian Miscellaneous Collections" each volume of which has the following preface:

"The present series, entitled "Smithsonian Miscellaneous Collections," is intended to embrace all the publications issued directly by the Smithsonian

Institution in octavo form; those in quarto constituting the "Smithsonian Contributions to Knowledge." The quarto series includes memoirs, embracing the records of extended original investigations and researches, resulting in what are believed to be new truths, and constituting positive additions to the sum of human knowledge. The octavo series is designed to contain reports on the present state of our knowledge of particular branches of science; instructions for collecting and digesting facts and materials for research; lists and synopses of species of the organic and inorganic world; museum catalogues; reports of explorations; aids to bibliographical investigations, etc.; generally prepared at the express request of the Institution and at its expense.

"The position of a work in one or the other of the two series will sometimes depend upon whether the required illustrations can be presented more conveniently in the quarto or the octavo form.

"In the Smithsonian Contributions to Knowledge, as well as in the present series, each article is separately paged and indexed, and the actual date of its publication is that given on its special title page, and not that of the volume in which it is placed. In many cases works have been published and largely distributed years before their combination into volumes.

"While due care is taken on the part of the Smithsonian Institution to insure a proper standard of excellence in its publications, it will be readily understood that it cannot hold itself responsible for the facts and conclusions of the authors, as it is impossible in most cases to verify their statements."

The total number of papers published in the 23 volumes of "Miscellaneous Collections" is 122, each volume averaging $882\frac{1}{2}$ pages, with an aggregate of 20,299 pages, 2,868 wood cuts, and 43 plates.

3. ANNUAL REPORTS.

By the act of Congress organizing the Institution it was made the duty of the "Board of Regents to submit at each session a report of the operations, expenditures, and condition of the Institution." These Annual Reports form a third series of Smithsonian publications. They consist of the reports of the Secretary to the Board of Regents of the operations and condition of the Institution; the reports of committees of the Board; reports of lectures; extracts from correspondence; original or translated articles relating to the history and progress of science, etc.

The first report was submitted by the Board to the second session of the 29th Congress, 1847, and formed an octavo pamphlet of 38 pages. A similar report was presented annually thereafter, varying in size from 64 pages to 326, printed in pamphlet form with paper covers up to 1853, when Congress ordered the report to be bound in cloth. In the volume for that year the essential portion of the contents of the preceding seven reports was reprinted,

and this is now considered as the first of a set of Smithsonian Reports. The number of pages was limited between 1854 and 1876 to 400. In the latter year this restriction was removed, and since then the average number of pages has been 600.

The number of copies of these reports for general distribution ordered by Congress has been very variable, the largest being 7,500 in 1874 and 1875, and the smallest 150 in 1847. The number of copies granted the Institution each year is shown in the following table:

Number of extra copies furnished the Institution by Congress for distribution.

FOR THE YEAR.	NO. OF COPIES.	FOR THE YEAR.	NO. OF COPIES.	FOR THE YEAR.	NO. OF COPIES.
1847	150	1859	2,000	1871	5,000
1848	1,000	1860	2,000	1872	5,000
1849	500	1861	2,000	1873	6,000
1850	1,000	1862	2,000	1874	7,500
1851	2,000	1863	2,000	1875	7,500
1852	2,000	1864	2,000	1876	6,500
1853	3,000	1865	2,000	1877	6,500
1854	2,500	1866	2,000	1878	6,500
1855	2,500	1867	2,000	1879	7,000
1856	2,500	1868	2,000	1880	7,000
1857	5,000	1869	3,000		
1858	5,000	1870	5,000		

The total number of pages in the 35 volumes of Annual Reports is 14,419, average 412 pages; total number of woodcuts, 1,898.

4. BULLETINS OF THE U. S. NATIONAL MUSEUM.

In the year 1875 a fourth series of publications (octavo) was commenced, entitled "Bulletins of the National Museum," intended to illustrate the collections of natural history and ethnology belonging to the United States, constituting the National Museum, of which the Smithsonian Institution is the custodian.

Twenty of these Bulletins have been published, with an aggregate of 3,103 pages, 45 plates, and 1 map.

5. PROCEEDINGS OF THE U. S. NATIONAL MUSEUM.

In imitation of the practice of those learned societies which publish periodically descriptions of new species, &c., in the form of proceedings of weekly or monthly meetings, and thus present to the world the discoveries connected with the establishment at the earliest practicable moment, it appeared to be very desirable that the National Museum should have some medium of prompt publication for announcing descriptions of specimens received, (many of which are new species,) as well as other interesting facts relative to natural history furnished by correspondents of the Institution. To meet this want a fifth series of publications, (octavo,) entitled "Proceedings of the National Museum," was commenced in 1880. They are printed in successive signatures as fast as material sufficient for 16 pages is prepared, and distributed at once to scientific societies and leading active working naturalists in this country and in Europe,* each signature having printed at the bottom of its first page the date of actual issue, for settling any questions as to priority of publication. Of this series four volumes have been published, comprising 2,221 pages, with 28 cuts and 19 plates.

6. REPORTS OF THE BUREAU OF ETHNOLOGY.

The sixth series of publications is the annual report (in Imperial octavo) of the Bureau of Ethnology, placed by Congress in charge of the Smithsonian Institution. The first volume of this series was issued in 1881, and consists of 638 pages, with 343 cuts, 54 plates, and 1 map.

The distribution of this volume to individuals is wholly by Members of Congress and the Director of the Bureau, Major J. W. Powell—the Institution having copies at its disposal only for the libraries on its regular list of distribution for its own full series.

7. COPYRIGHT.

No copyright has ever been secured on the publications of the Institution. They are left free to be used by compilers of books without any restrictions, except that full credit shall be given to the name of Smithsonian for any extracts which may be made from them.

* Prof. Baird's report for 1880.

8. USE OF ILLUSTRATIONS.

Copies of the wood cuts used by the Institution are granted to authors or publishers on payment of the actual cost of production of electrotypes, and promise to give proper reference to the article in which they originally appeared.

9. SIZE OF EDITIONS.

In the first experiments of the Smithsonian system of publication, the proper magnitude of the editions necessary to meet the immediate and future demand could not be accurately ascertained. The number of copies of the Contributions then fixed upon, has since been found inadequate, although it was larger than that usually issued by other institutions. The edition has, therefore, been augmented, until at the present time 1,000 copies of each article are set aside to be combined into volumes, and an extra number, varying with the probable demand, struck off for separate distribution, and for sale.

Each article is complete in itself, with separate paging, title, and index, and without any necessary relationship to others combined with it in the same volume.

Of the early volumes of Smithsonian Contributions, the edition, for reasons already explained, was less than of the succeeding ones, so that complete sets cannot now be furnished.

In the year 1862, the plan of stereotyping every article printed by the Institution was adopted, the plates being carefully preserved, thus making it practicable at any time to issue new editions except where expensive lithographic plates were used, a limited number, only, of impressions from these having been taken.

A number of the earlier articles in octavo were out of print before the commencement of the series of "Miscellaneous Collections," and consequently are not included in them.

The printing of the "Bulletins" and "Proceedings" is authorized by the DEPARTMENT OF THE INTERIOR and paid for out of its fund. An edition of 1,000 copies is published, of which one-half is distributed by the Department of the Interior and one-half by the Institution. As the pages are stereotyped, the cost of additional copies is slight; and for the purpose of making sure that a sufficient number of sets will be accessible forever to

students in all parts of the world, it has been considered expedient to print 1,500 additional copies of each for incorporation in the Miscellaneous Collections.*

10. DISTRIBUTION OF PUBLICATIONS.

The distribution of the publications of the Institution is a matter which requires much care and judicious selection, the great object being to make known to the world the truths which may result from the expenditure of the Smithsonian fund. For this purpose the CONTRIBUTIONS are so distributed as to be accessible to the greatest number of readers; that is, to large central libraries.

The volumes of Contributions are presented on the express condition that, while they are carefully preserved, they shall be accessible at all times to students and others who may desire to consult them, and be returned to the Institution in case the establishments to which they are presented at any time cease to exist.

These works, it must be recollected, are not of a popular character, but require profound study to fully understand them; they are, however, of importance to the professional teacher and the popular expounder of science. They contain the materials from which general treatises on special subjects may be elaborated.†

Full sets of the publications cannot be given to all who apply for them, since this is impossible with the limited income of the Institution, and, indeed, if care be not exercised in the distribution, so large a portion of the income will be annually expended on the production of copies for distribution of what has already been published that nothing further can be done in the way of new publications. It must be recollected that every addition to the list of distribution not only involves the giving of the publications which have already been made, but also of those which are to be made hereafter.‡

The rules governing the distribution of the Smithsonian publications are appended. To enable institutions not coming within their provisos, as well as individuals, to procure copies of such as may be desired, a small number is set aside and sold by the Institution at a price which is intended merely to cover the actual cost of their publication.

* Prof. Baird's report for 1880.

† Prof. Henry's report for 1876.

‡ Prof. Henry's report for 1873.

11. RULES FOR DISTRIBUTION OF THE PUBLICATIONS OF THE SMITHSONIAN INSTITUTION.

To Institutions.

The publications of the Smithsonian Institution are furnished :

1st. To learned societies of the first class, which present complete series of their publications to the Institution.

2d. To libraries of the first class, which give in exchange their catalogues and other publications ; or an equivalent, from their duplicate volumes.

3d. To colleges of the first class, which furnish catalogues of their libraries and of their students, and all publications relative to their organization and history.

4th. To public libraries containing 25,000 volumes.

5th. To smaller public libraries, where a large district would be otherwise unsupplied.

6th. Institutions devoted exclusively to the promotion of particular branches of knowledge may receive such Smithsonian publications as relate to their respective objects.

To Individuals.

The gratuitous distribution to *individuals*, of the publications of the Institution, is restricted :

1st. To those who are engaged in original research in the branch of science to which the book asked for pertains.

2d. To those who require it in the business of instruction.

3d. To donors to the museum or library of the Institution.

12. FORM OF APPLICATION FOR PUBLICATIONS.

To the Smithsonian Institution, Washington, D. C.

Date,

18

In behalf of the _____, we respectfully apply for the publications of the Smithsonian Institution, on condition that all volumes received shall be carefully preserved, be accessible to any person who may wish to consult them, and be returned to the Smithsonian Institution in case the establishment at any time ceases to exist.

1. Name of Establishment _____
2. Location—Town _____
State _____
3. When established _____
4. Character _____
5. Buildings and property _____
6. Permanent fund _____
7. Annual income _____
8. Volumes in library _____
9. Number of persons having use of books _____
10. Date of last catalogue of library _____
11. What publications made _____
(Send printed list if possible.)
12. Names of Officers: President _____
Secretary _____
Librarian _____
13. Addresses of principal scientific men connected with the Establishment and subjects in which specially interested _____

I recommend the above application.

_____ Member of Congress,
_____ District _____ State.

13. PRICE LIST OF SMITHSONIAN PUBLICATIONS.

Where no price is given the work is out of print, and cannot be furnished. Of those marked "free" the edition is limited, and copies are only given to those specially interested in the subjects to which they pertain, who are collaborators of the Institution or contributors to its library or museum.

P	\$10 00	60	\$1 00	120	\$1 00	180	\$1 00	240		300	\$0 25	360	free.	420	free.
1		61	1 00	121	25	181	2 00	241	\$7 50	301		361		421	free.
2		62	2 00	122	6 00	182	2 50	242	7 50	302	25	362	free.	422	\$0 25
3		63	1 00	123	6 00	183	25	243	free.	303	50	363	free.	423	6 00
4		64	free.	124		184	12 00	244	1 00	304	50	364	free.	424	6 00
5		65		125	6 00	185	free.	245	free.	305	50	365	free.	425	2 00
6		66		126	1 25	186	50	246	12 00	306	50	366	free.	426	free.
7		67		127	1 25	187	50	247	50	307		367	free.	427	free.
8		68		128	25	188	50	248		308	50	368		428	free.
9		69		129	1 00	189	1 00	249		309	free.	369		429	free.
10		70	6 00	130	1 50	190	free.	250		310	25	370	free.	430	free.
11		71		131	1 25	191		251	free.	311	50	371	free.	431	free.
12	4 00	72	3 00	132	25	192	5 00	252		312		372	free.	432	free.
13	2 00	73	25	133	2 00	193	free.	253		313	50	373	free.	433	free.
14	1 00	74		134		194		254	2 00	314	6 00	374	free.	434	free.
15	4 00	75		135		195		255		315	6 00	375	free.	435	free.
16		76	12 00	136		196		256	2 00	316	free.	376	free.	436	free.
17	50	77		137		197	1 00	257		317	3 00	377	free.	437	free.
18		78	12 00	138	free.	198		258	2 00	318	2 00	378	free.	438	free.
19		79	1 00	139	free.	199	2 00	259	3 00	319	free.	379	free.	439	35
20	1 00	80	1 00	140	75	200		260		320	free.	380	free.	440	50
21	1 00	81		141	1 50	201	50	261	free.	321	25	381	free.	441	1 50
22		82	1 50	142	3 00	202	3 50	262	3 00	322	6 00	382	free.	442	50
23	2 00	83	1 25	143	1 25	203		263		323		383	\$2 50	443	1 00
24		84	1 50	144	1 00	204	1 00	264		324	free.	384	free.	444	50
25	50	85	25	145	75	205	free.	265		325	free.	385	free.	445	free.
26		86		146	1 50	206	12 00	266	25	326	50	386	free.	446	free.
27	50	87	25	147		207	free.	267	1 00	327	75	387	free.	447	free.
28	1 00	88	1 00	148	free.	208	50	268		328	5 00	388	free.	448	free.
29		89	5 00	149		209		269		329		389	free.	449	free.
30		90	5 00	150		210	25	270	2 00	330		390	free.	450	free.
31		91		151	12 00	211	12 00	271		331	2 00	391	free.	451	free.
32		92	12 00	152		212	6 00	272	12 00	332	2 00	392	free.	452	free.
33	75	93		153		213	6 00	273	6 00	333	2 00	393	free.	453	free.
34	free.	94	50	154		214	1 00	274	6 00	334	25	394	free.	454	free.
35		95	6 00	155		215		275	50	335	free.	395	free.	455	free.
36	1 00	96	20 00	156	50	216	25	276	50	336	6 00	396	free.	456	free.
37		97	1 00	157		217		277	3 00	337	6 00	397	free.	457	free.
38		98	4 00	158		218		278	free.	338		398	free.	458	free.
39		99	12 00	159	1 00	219	2 00	279	25	339		399	free.	459	free.
40		100	50	160		220		280	1 00	340	12 00	400	free.	460	free.
41	1 00	101	free.	161	50	221	1 00	281	75	341	50	401	free.	461	free.
42		102		162	1 00	222	3 00	282	25	342	50	402	free.	462	free.
43		103	2 00	163	free.	223	1 00	283	25	343	free.	403	free.	463	50
44		104		164	50	224		284	12 00	344	free.	404	free.	464	free.
45		105	50	165		225		285	12 00	345	50	405	free.	465	free.
46		106	50	166	1 00	226	free.	286	50	346	12 00	406	free.	466	free.
47	50	107		167	1 00	227	25	287	2 00	347	free.	407		467	2 00
48		108	25	168	free.	228	50	288	50	348		408	free.	468	6 00
49	1 00	109		169	6 00	229	12 00	289	50	349	25	409	free.	469	free.
50	1 50	110		170	free.	230	25	290	free.	350	free.	410	free.	470	50
51		111	12 00	171		231		291	25	351		411	free.	471	free.
52	5 00	112	12 00	172		232	2 00	292	50	352	free.	412	50	472	free.
53	50	113	25	173	2 50	233	25	293	50	353	3 00	413	50	473	free.
54	50	114	1 25	174	2 00	234	free.	294	50	354	free.	414	15	474	free.
55		115	free.	175	1 00	235	free.	295	50	355		415	free.	475	6 00
56		116		176	free.	236	free.	296	50	356	50	416	6 00	476	
57	1 00	117	2 00	177	25	237	free.	297	50	357	2 50	417	free.	477	free.
58	5 00	118	1 00	178	free.	238		298	50	358	1 00	418	free.	478	75
59	25	119	1 00	179	3 00	239	2 00	299		359	free.	419	free.		

LIST OF PUBLICATIONS

OF THE

SMITHSONIAN INSTITUTION.

NOTE.—A to Q indicate early publications not embraced in the regular series.

- A. Journal of Proceedings of the Regents of the Smithsonian Institution, at the city of Washington, beginning on the first Monday of September, 1846. 1846. 8vo., pp. 32.
- B. Report of the Organization Committee of the Smithsonian Institution, with the resolutions accompanying the same and adopted by the Board of Regents; also, the Will of the testator, the Act accepting the bequest, and the Act organizing the Institution. 1847. 8vo., pp. 32.
- C. Digest of the Act of Congress establishing the Smithsonian Institution. August 10, 1846. 8vo., pp. 8.
- D. Address delivered on occasion of laying the Corner Stone of the Smithsonian Institution, May 1, 1847. By GEORGE M. DALLAS, Chancellor of the Institution. 1847. 8vo., pp. 8.
- E. Smithson's Bequest. Professor HENRY'S exposition before the New Jersey Historical Society, at its meeting in Princeton, on Wednesday, September 27. 1847. 8vo., pp. 8.
- F. First Report of the Secretary of the Smithsonian Institution to the Board of Regents; giving a Programme of Organization, and an account of the operations during the year. Presented December 8, 1847. 1848. 8vo., pp. 48.
- G. [First] Report from the Board of Regents, submitted to Congress, of the operations, expenditures, and condition of the Smithsonian Institution. Senate Doc. 211; 29th Congress, 2d Session. 1847. 8vo., pp. 38.
- H. Second Report of the Board of Regents of the Smithsonian Institution, to the Senate and House of Representatives, showing the operations, expenditures, and condition of the Institution during the year 1847. 30th Congress, 1st Session. Senate Miscellaneous No. 23. 1848. 8vo., pp. 208.

H. Report for 1847—Continued.

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Report of Prof. J. HENRY, and Proceedings of the Board.

GALLATIN, A.; ROBINSON, E.; BARTLETT, J. R.; TURNER, W. W.;
MORTON, S. G.; MARSH, G. P. On publication of Squier & Davis's
Ancient Monuments.

JEWETT, C. C. Report on plan of library.

LOOMIS, E. Report on meteorology of the United States.

ESPY, J. P. On meteorology.

- I.** Third Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1848. 30th Congress, 2d Session. H. R. Miscellaneous, No. 48. 1849. 8vo., pp. 64.

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- J.** Programme of organization of the Smithsonian Institution. Presented in the first annual report of the Secretary, and adopted by the Board of Regents, December 13, 1847. 1847. 4to., pp. 4.
- K.** Correspondence relative to the acceptance for publication of the ethnological memoir of Messrs. Squier and Davis. 1847. 8vo., pp. 8.
- L.** [First] Report of the Organization Committee of the Smithsonian Institution. Reprinted from the National Intelligencer, December 8, 1846. 8vo., pp. 8.
- M.** Reports, etc., of the Smithsonian Institution, exhibiting its plans, operations, and financial condition up to January 1, 1849. From the third annual report of the Board of Regents. Presented to Congress February 19, 1849. 1849. 8vo., pp. 72.
- N.** Officers and Regents of the Smithsonian Institution, with the act of Congress accepting the bequest, and the act incorporating said Institution. 1846. 8vo., pp. 14.
- O.** An Act to establish the Smithsonian Institution. Approved Aug. 10, 1846. pp. 8.
- P.** Hints on Public Architecture, containing, among other illustrations, views and plans of the Smithsonian Institution; together with an appendix relative to building materials. Prepared on behalf of the Building Committee of the Smithsonian Institution, by ROBERT DALE OWEN, chairman of the committee. 1849. 4to., pp. 140, 99 woodcuts, 15 plates.
- Q.** Check list of periodical publications received in the reading-room of the Smithsonian Institution, for the year 1853. 1853. 4to., pp. 28.

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1. Ancient Monuments of the Mississippi Valley ; comprising the results of extensive original surveys and explorations. By E. G. SQUIER and E. H. DAVIS. 1848. 4to., pp. 346, 207 woodcuts, 48 plates. (S. C. I.)
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 13. Contributions to the Physical Geography of the United States. Part I. On the physical geography of the Mississippi valley, with suggestions for the improvement of the navigation of the Ohio and,

* These three papers by Mr. Downes, Nos. 8, 9, 10, were not published in the series of Contributions.

other rivers. By CHARLES ELLET, JR. 1850. 4to., pp. 64, 2 woodcuts, 1 plate. (S. C. II.)

14. A Memoir on *Mosasaurus*, and the three Allied New Genera, *Holcodus*, *Conosaurus*, and *Amphorosteus*. By ROBERT W. GIBBES. November, 1850. 4to., pp. 14, 3 plates of 28 figures. (S. C. II.)

15. Aboriginal Monuments of the State of New York. Comprising the results of original surveys and explorations; with an illustrative appendix. By E. G. SQUIER. 1850. 4to., pp. 188, 79 woodcuts, 14 plates of 33 figures. (S. C. II.)

16. The Classification of Insects from Embryological Data. By LOUIS AGASSIZ, 1850. 4to., pp. 28, 8 woodcuts, one plate of 23 figures. (S. C. II.)

17. Memoir on the Explosiveness of Nitre, with a view to elucidate its agency in the tremendous explosion of July, 1845, in New York. By ROBERT HARE. 1850. 4to., pp. 20. (S. C. II.)

18. Report on the History of the Discovery of Neptune. By BENJAMIN APTHORP GOULD, JR. 1850. 8vo., pp. 56.

19. Directions for Meteorological Observations, intended for the first class of observers. By ARNOLD GUYOT. 1850. 8vo., pp. 40, 9 woodcuts.

20. Microscopical Examination of Soundings, made by the United States Coast Survey off the Atlantic coast of the United States. By J. W. BAILEY. January, 1851. 4to., pp. 16 and 1 plate of 68 figures. (S. C. II.)

21. Fourth Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1849. 31st Congress, 1st Session. Senate Miscellaneous No. 120, 8vo., pp. 64, with appendix of 207 pp. House of Representatives Miscellaneous No. 50. 1850. 8vo., pp. 272.

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22. Plantæ Wrightianæ Texano-Neo-Mexicanæ. By ASA GRAY. Part I. March, 1852. 4to., pp. 146, 10 plates of 127 figures. (S. C. III.)

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23. Microscopical Observations made in South Carolina, Georgia, and Florida. By J. W. BAILEY. 1851. 4to., pp. 48, 3 plates of 83 figures. (S. C. II.)

24. Ephemeris of the Planet Neptune for the year 1852. By SEARS C. WALKER. 1853. 4to. pp. 10. (S. C. III.)
25. Notices of Public Libraries in the United States of America. By CHAS. C. JEWETT. Printed by order of Congress as an appendix to the Fourth Annual Report of the Board of Regents of the Smithsonian Institution. 1851. 8vo., pp. 210.
26. Smithsonian Contributions to Knowledge. Vol. II. 1851. 4to., pp. 572, 89 woodcuts, 24 plates.

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28. Fifth Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1850. Special session, March, 1851. Senate Miscellaneous No. 1. 1851. 8vo., pp. 145. (Extra edition of 326 pp.)

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31. A Collection of Meteorological Tables, with other tables useful in Practical Meteorology. By ARNOLD GUYOT. 1852. 8vo., pp. 212.
32. Nereis Boreali-Americana: or, Contributions to a History of the Marine Algæ of North America. By WILLIAM HENRY HARVEY. Part I.—Melanospermeæ. January, 1852. 4to., pp. 152, 12 colored plates of 29 figures. (S. C. III.)
33. The Law of Deposit of the Flood Tide: its Dynamical Action and Office. By CHARLES HENRY DAVIS. 1852. 4to., pp. 14. (S. C. III.)
34. Directions for Collecting, Preserving, and Transporting Specimens of Natural History. March, 1859. 8vo., pp. 40, 6 woodcuts. (M. C. II.)
35. Observations on Terrestrial Magnetism. By JOHN LOCKE. April, 1852. 4to., pp. 30. (S. C. III.)
36. Researches on Electrical Rheometry. By A. SECCHI. May, 1852. 4to., pp. 60, 3 plates of 15 figures. (S. C. III.)
37. Descriptions of Ancient Works in Ohio. By CHAS. WHITTLESEY. 1851. 4to., pp. 20, 7 plates of 18 figures. (S. C. III.)
38. Smithsonian Contributions to Knowledge. Vol. III. 1852. 4to., pp. 562, and 35 plates.

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39. Smithsonian Contributions to Knowledge. Vol. IV. 1852. 4to., pp. 426.

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- ✓ 41. Memoir on the Extinct Species of American Ox. By JOSEPH LEIDY. December, 1852. 4to., pp. 20, 4 plates of 15 figures. (S. C. v.)
- ✓ 42. Plantæ Wrightianæ Texano-Neo-Mexicanæ. By ASA GRAY. Part II. February, 1853. 4to., pp. 120, 4 plates of 39 figures. (S. C. v.)
- ✓ 43. Nercis Boreali-Americana; or, Contributions to a History of the Marine Algæ of North America. By W. H. HARVEY. Part II.—Rhodospereæ. March, 1853. 4to., pp. 262, 24 plates, colored, of 64 figures. (S. C. v.)
- ✓ 44. A Flora and Fauna within Living Animals. By JOSEPH LEIDY. April, 1853. 4to., pp. 68, 10 plates of 140 figures. (S. C. v.)
- ✓ 45. Anatomy of the Nervous System of *Rana pipiens*. By JEFFRIES WYMAN. March, 1853. 4to., pp. 52, 4 woodcuts, 2 plates of 29 figures. (S. C. v.)
- ✓ 46. Plantæ Frémontianæ: or, Descriptions of Plants collected by J. C. Frémont in California. By JOHN TORREY. 1853. 4to., pp. 24, 10 plates of 89 figures. (S. C. VI.)
- ✓ 47. On the Construction of Catalogues of Libraries, and their publication by means of separate stereotyped titles. With rules and examples. By CHARLES C. JEWETT. 1852. 8vo., pp. 78. 1853. 8vo., pp. 108.
- ✓ 48. Bibliographia Americana Historico-Naturalis; or Bibliography of American Natural History for the year 1851. 1851. By CHARLES GIRARD. December, 1852. 8vo., pp. 64.
- ✓ 49. Catalogue of North American Reptiles in the Museum of the Smithsonian Institution. By S. F. BAIRD and C. GIRARD. Part I.—Serpents. January, 1853. 8vo., pp. 188. (M. C. II.)
- ✓ 50. Synopsis of the Marine Invertebrata of Grand Manan: or the region about the mouth of the Bay of Fundy, New Brunswick. By WM. STIMPSON. March, 1853. 4to., pp. 68, 3 plates of 37 figures. (S. C. VI.)
- ✓ 51. Sixth Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1851. 32d Congress, 1st session, Senate Mis. No. 108. 1852. 8vo., pp. 104.

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51. Report for 1851—Continued.

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52. Winds of the Northern Hemisphere. By JAMES H. COFFIN. November, 1853. 4to., pp. 200, 6 woodcuts, 13 plates of 238 figures. (S. C. VI.)

53. Catalogue of Portraits of North American Indians, and Sketches of Scenery, etc., painted by J. M. STANLEY. Deposited with the Smithsonian Institution. December, 1852. 8vo., pp. 76. (M. C. II.)

54. Occultations of Planets and Stars by the Moon, during the year 1853. By JOHN DOWNES. 1853. 4to., pp. 36. (S. C. VI.)

55. Smithsonian Contributions to Knowledge. Vol. V. 1853. 4to., pp. 538, 4 woodcuts, 45 plates.

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56. Smithsonian Contributions to Knowledge. Vol. VI. 1854. 4to., pp. 484, 9 woodcuts, 53 plates.

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57. Seventh Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1852. 32d Congress, 2d Session, Senate Misc. No. 53. 1853. 8vo., pp. 96.

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58. The Ancient Fauna of Nebraska: or, a Description of Remains of Extinct Mammalia and Chelonian, from the Mauvaises Terres of Nebraska. By JOSEPH LEIDY. June, 1853. 4to., pp. 126, 3 woodcuts, 25 plates of 126 figures. (S. C. VI.)

59. Account of a Tornado near New Harmony, Indiana, April 30, 1852,

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- 60. Observations on the *Batis maritima* of Linnæus. By JOHN TORREY. April, 1853. 4to., pp. 8, 1 plate of 21 figures. (S. C. VI.)
- 61. On the *Darlingtonia Californica*; a new pitcher-plant from Northern California. By JOHN TORREY. April, 1853. 4to., pp. 8, 1 plate of 9 figures. (S. C. VI.)
- 62. Catalogue of the Described Coleoptera of the United States. By F. E. MELSHEIMER. July, 1853. 8vo., pp. 190.
- 63. Notes on New Species and Localities of Microscopical Organisms. By J. W. BAILEY. February, 1854. 4to., pp. 16, 7 woodcuts, 1 plate of 39 figures. (S. C. VII.)
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- 66. The Annular Eclipse of May 26, 1854. 1854. 8vo., pp. 14, 1 map.
- 67. Eighth Annual Report of the Board of Regents of the Smithsonian Institution for the year 1853. 33d Congress, 1st Session, Senate Doc. No. 73, pp. 269. House of Representatives, Mis. Doc. No. 97. 1854. 8vo., pp. 310.*

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67. Report for 1853—Continued.

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68. Vocabulary of the Jargon or Trade Language of Oregon. By B.
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69. List of Domestic Institutions in correspondence with the Smithsonian
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72. A Memoir on the Extinct Sloth tribe of North America. By JOSEPH
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73. Publications of Learned Societies and Periodicals in the Library of
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74. Catalogue of Publications of the Smithsonian Institution. Corrected
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75. Ninth Annual Report of the Board of Regents of the Smithsonian
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76. Smithsonian Contributions to Knowledge. Vol. VII. 1855. 4to., pp. 260, 74 woodcuts, 72 plates, two maps.

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77. Tenth Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1855. 34th Congress, 1st session, Senate Mis. Doc. 73. House of Representatives Mis. Doc. 113. 1856. 8vo., pp. 440, 79 woodcuts.

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78. Smithsonian Contributions to Knowledge. Vol. VIII. 1856. 4to., pp. 564, 52 woodcuts, 9 plates.

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80. The Tangencies of Circles and of Spheres. By BENJAMIN ALVORD. January, 1856. 4to., pp. 16, 25 woodcuts, 9 plates of 20 figures. (S. C. VIII.)

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84. Record of Auroral Phenomena observed in the higher Northern Latitudes. By PETER FORCE. July, 1856. 4to., pp. 122. (S. C. VIII.)
85. Publications of Learned Societies and Periodicals in the Library of the Smithsonian Institution. Part II. May, 1856. 4to., pp. 38. (S. C. VIII.)
86. Observations on Mexican History and Archæology, with a special notice of Zapotec Remains, as delineated in Mr. J. G. Sawkins's drawings of Mitla, etc. By BRANTZ MAYER. November, 1856. 4to., pp. 36, 17 woodcuts, 4 plates of 6 figures. (S. C. IX.)
87. Psychrometrical Table for Determining the Elastic Force of Aqueous Vapor, and the Relative Humidity of the Atmosphere from indications of the Wet and the Dry Bulb Thermometer, Fahrenheit. By JAMES H. COFFIN. 1856. 8vo., pp. 20. (M. C. I.)
88. Researches on the Ammonia-cobalt Bases. By WOLCOTT GIBBS and FREDERICK AUG. GENTH. December, 1856. 4to., pp. 72, 21 woodcuts. (S. C. IX.)
89. North American Oölogy. By THOMAS M. BREWER. Part I. Raptores and Fissirostres. 1857. 4to., pp. 140, 5 plates of 193 figures. (S. C. XI.)
90. Illustrations of Surface Geology. By EDWARD HITCHCOCK. April, 1857. 4to., pp. 164, 2 woodcuts, 12 plates of 89 figures. (S. C. IX.)
91. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1856. 34th Congress, 3d session, Senate, No. 54, House of Representatives, Mis. Doc. No. 55. 1857. 8vo., pp. 468, 69 woodcuts.

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92. Smithsonian Contributions to Knowledge. Vol. IX. 1857. 4to., pp. 480, 45 woodcuts, 22 plates.

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93. Smithsonian Meteorological Observations for the year 1855. (Printed for examination by the observers.) 1857. 8vo., pp. 118.

94. Asteroid Supplement to New Tables for determining the Values of $b^{(i)}$ and its derivatives. By JOHN D. RUNKLE. May, 1857. 4to., pp. 72. (S. C. ix.)

95. Nereis Boreali-Americana: or, Contributions to the History of the Marine Algæ of North America. By WILLIAM HENRY HARVEY. Part III.—Chlorospermææ. March, 1858. 4to., pp. 142, 14 plates of 44 figures. (S. C. x.)

96. Nereis Boreali-Americana: or, Contributions to a History of the Marine Algæ of North America. By WILLIAM HENRY HARVEY. Three parts in one vol., with 50 plates. May, 1858. 4to., pp. 568. [Nos. 32, 43, 95.]

97. Magnetical Observations in the Arctic Seas. By ELISHA KENT KANE. Made during the Second Grinnell Expedition in search of Sir John

Franklin, in 1853-'54-'55, at Van Rensselaer Harbor, and other points on the west coast of Greenland. Reduced and discussed by Charles A. Schott. 1859. 4to., pp. 72, 1 woodcut, 2 plates. (S. C. x.)

98. Grammar and Dictionary of the Yoruba Language. With an introductory description of the country and people of Yoruba. By T. J. BOWEN. June, 1858. 4to., pp. 232, 1 map. (S. C. x.)

99. Smithsonian Contributions to Knowledge. Vol. X. 1858. 4to., pp. 462, 1 woodcut, 16 plates, 1 map.

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101. Map of the Solar Eclipse of March 15, 1858. By THOMAS HILL. January, 1858. 8vo., pp. 8, 1 plate.

102. Catalogue of the described Diptera of North America. By R. OSTEN SACKEN. January, 1858. 8vo., pp. 116. October, 1859. (M. C. III.)

103. Meteorological Observations made at Providence, Rhode Island, from December, 1831, to May, 1860. By A. CASWELL. October, 1860. 4to., pp. 188. (S. C. xii.)

104. Meteorological Observations in the Arctic Seas. By E. K. KANE. Made during the Second Grinnell Expedition in search of Sir John Franklin, in 1853-'54-'55, at Van Rensselaer Harbor, and other points on the west coast of Greenland. Reduced and discussed by Charles A. Schott. November, 1859. 4to., pp. 120, 10 woodcuts. (S. C. xi.)

105. Catalogue of North American Mammals, chiefly in the Museum of the Smithsonian Institution. By SPENCER F. BAIRD. July, 1857. 4to., pp. 22.

106. Catalogue of North American Birds, chiefly in the Museum of the Smithsonian Institution. By SPENCER F. BAIRD. October, 1858. 4to., pp. 42.

107. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1857. 35th Congress, 1st Session, Senate Mis. Doc. No. 272, House of Representatives, No. 135. 1858. 8vo., pp. 438, 100 woodcuts.

107. Report for 1857—Continued.

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108. Catalogue of North American Birds, chiefly in the Museum of the Smithsonian Institution. BY SPENCER F. BAIRD. 1859. 8vo. pp. 24. (M. C. II.)

108*. Same Title, (printed for labelling, with one side of each leaf blank.)

109. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1858. 35th Congress, 2d Session, Senate Mis. Doc. No. 49. House Rep., No. 57. 1859. 8vo., pp. 448, 48 woodcuts.

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110. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1859. 36th Congress, 1st Session, House of Representatives, Mis. Doc. No. 90. 1860. 8vo., pp. 450, 57 woodcuts.

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114. Observations on Terrestrial Magnetism in Mexico. Conducted under the direction of Baron VON MÜLLER, with notes and illustrations of an examination of the volcano Popocatepetl and its vicinity. By AUGUST SONNTAG. February, 1860. 4to., pp. 92, 4 woodcuts, one plate. (S. C. XI.)

115. Proceedings of the Board of Regents of the Smithsonian Institution, in relation to the Electro-Magnetic Telegraph. 1861. 8vo., pp. 40, 7 woodcuts. (M. C. II.)

116. List of Public Libraries, Institutions, and Societies in the United States and British Provinces of North America. By WILLIAM J. RHEES. 1859. 8vo., pp. 84.

117. Catalogue of Publications of Societies and of other Periodical Works in the Library of the Smithsonian Institution, July 1, 1858. Foreign Works. 1859. 8vo., pp. 264. (M. C. III.)

118. Catalogue of the Described Lepidoptera of North America. By JOHN G. MORRIS. May, 1860. 8vo., pp. 76. (M. C. III.)

119. On Fluctuations of Level in the North American Lakes. By CHARLES WHITTLESEY. July, 1860. 4to., pp. 28, 2 plates of 4 figures. (S. C. XII.)

120. Results of Meteorological Observations made at Marietta, Ohio, between 1826 and 1859, inclusive. By S. P. HILDRETH. To which are added results of observations taken at Marietta, by JOSEPH WOOD, between 1817 and 1823. Reduced and discussed by Charles A. Schott. September, 1867. 4to., pp. 52, 14 woodcuts. (S. C. XVI.)

121. Discussion of the Magnetic and Meteorological Observations made at the Girard College Observatory, Philadelphia, in 1840-'41-'42-'43-'44-'45. By A. D. BACHE. Part II.—Investigation of the solar-diurnal variation in the magnetic declination and its annual inequality. June, 1862, 4to., pp. 28, 8 woodcuts. (S. C. XIII.)

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125. Smithsonian Miscellaneous Collections. Vol. IV. 1862. 8vo., pp. 762, 30 woodcuts.

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- 128.** Check-lists of the Shells of North America. By ISAAC LEA, P. P. CARPENTER, WM. STIMPSON, W. G. BINNEY, and TEMPLE PRIME. June, 1860. 8vo., pp. 52. (M. C. II.)
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150. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1862. 37th Congress, 3d session, House of Representatives Mis. Doc., No. 25. 1863. 8vo., pp. 446, 94 woodcuts.

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151. Smithsonian Contributions to Knowledge. Vol. XIII. 1863. 4to., pp. 558, 80 woodcuts, 4 plates, 3 maps.

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152. Lectures on Mollusca or "Shell-fish," and their Allies. Prepared for the Smithsonian Institution. By PHILIP P. CARPENTER. 1861. 8vo., pp. 140.

153. Tables, Meteorological and Physical, Prepared for the Smithsonian Institution. By ARNOLD GUYOT. Third edition, revised and enlarged. 1859. 8vo., pp. 638. (M. C. I.)

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154. List of Foreign Correspondents of the Smithsonian Institution. Corrected to January, 1862. May, 1862. 8vo., pp. 56. (M. C. v.)

155. Ancient Mining on the Shores of Lake Superior. By CHARLES WHITTLESEY. April, 1863. 4to., pp. 34, 30 woodcuts, 1 map. (S. C. XIII.)

156. Catalogue of Minerals, with their Formulas, etc. By T. EGGLESTON. June, 1863. 8vo., pp. 56. (M. C. VII.)

157. Results of Meteorological Observations made under the direction of the United States Patent Office and the Smithsonian Institution, from the year 1854 to 1859, inclusive, being a Report of the Commissioner of Patents made at the first session of the 36th Congress. Vol. I. 1861. 36th Congress, 1st session, Senate Ex. Doc. 4to., pp. 1270.

158. Smithsonian Miscellaneous Collections. Vol. V. 1864. 8vo., pp. 774.

158. Miscellaneous Collections. Vol. V—Continued.
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159. Researches upon the Anatomy and Physiology of Respiration in the
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April, 1863. 4to., pp. 50, 10 woodcuts. (S. C. xiii.)

160. Instructions for Research Relative to the Ethnology and Philology
of America. By GEORGE GIBBS. March, 1863. 8vo., pp. 56.
(M. C. vii.)

161. A Dictionary of the Chinook Jargon or Trade Language of Oregon.
By GEORGE GIBBS. March, 1863. 8vo., pp. 60. (M. C. vii.)

162. Discussion of the Magnetic and Meteorological Observations made at
the Girard College Observatory, Philadelphia, in 1840-'41-'42-'43-'
'44-'45. Second section, comprising Parts IV, V, and VI. Horizontal
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nual inequality of the horizontal force, and of the lunar effect on the
same. By A. D. BACHE. November, 1862. 4to., pp. 78, 11 wood-
cuts. (S. C. xiii.)

163. Circular in Reference to the History of North American Grasshop-
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164. Smithsonian Museum Miscellanea. 1862. 8vo., pp. 88. (M. C. viii.)

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165. Monograph of the Bats of North America. By H. ALLEN. June,
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166. Records and Results of a Magnetic Survey of Pennsylvania and parts of Adjacent States, in 1840 and 1841, with some additional records and Results of 1834, 1835, 1843 and 1862, and a map. By A. D. BACHE. October, 1863. 4to., pp. 88, 1 map. (S. C. XIII.)
167. New Species of North American Coleoptera. By JOHN L. LE CONTE. Part I. March, 1863. April, 1866. 8vo., pp. 180. (M. C. VI.)
168. Circular Relative to Collections of Birds from Middle and South America. December, 1863. 8vo., pp. 2. (M. C. VIII.)
169. Smithsonian Miscellaneous Collections. Vol. VI. 1867. 8vo., pp. 888. 15 woodcuts, 7 plates of 106 figures.

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170. Comparative Vocabulary. May, 1863. 4to., pp. 20.
171. Monographs of the Diptera of North America. By H. LOEW. Part II. Edited by R. Osten Sacken. January, 1864. 8vo., pp. 372, 5 plates of 44 figures. (M. C. VI.)
172. Palæontology of the Upper Missouri; a Report upon Collections made principally by the Expeditions under command of Lieutenant G. K. Warren, United States Topographical Engineers, in 1855 and 1856. Invertebrates. By F. B. MEEK and F. V. HAYDEN. Part I. April, 1865. 4to., pp. 158, 48 woodcuts, 5 plates of 41 figures. (S. C. XIV.)
173. The Gray Substance of the Medulla Oblongata and Trapezium. By JOHN DEAN. February, 1864. 4to., pp. 80, 5 woodcuts, 16 plates of 65 figures. (S. C. XVI.)
174. Bibliography of North American Conchology previous to the year 1860. By W. G. BINNEY. Part II. Foreign authors. June, 1864. 8vo., pp. 302. (M. C. IX.)
175. Discussion of the Magnetic and Meteorological Observations made at the Girard College Observatory, Philadelphia, in 1840, 1841, 1842, 1843, 1844 and 1845. Third section, comprising Parts VII, VIII, and IX. Vertical force. Investigations of the eleven (or ten) year period and of the disturbances of the vertical component of the magnetic force, and appendix on the magnetic effect of the aurora borealis; with an investigation of the solar diurnal variation, and of the

annual inequality of the vertical force; and of the lunar effect on the vertical force, the inclination, and total force. By A. D. BACHE. April, 1864. 4to., pp. 72, 14 woodcuts. (S. C. XIV.)

176. Circular in Reference to Collecting North American Shells. January, 1860. 8vo., pp. 4. (M. C. II.)
177. Check-list of the Invertebrate Fossils of North America. Cretaceous and Jurassic. By F. B. MEEK. April, 1864. 8vo., pp. 42. (M. C. VII.)
178. Circular to Entomologists. 1860. 8vo., pp. 2. (M. C. VIII.)
179. Catalogue of Publications of Societies and of Periodical Works, belonging to the Smithsonian Institution, January 1, 1866. 1866. 8vo., pp. 596. (M. C. IX.)
180. On the Construction of a Silvered Glass Telescope, fifteen and a half inches in aperture, and its use in Celestial Photography. By HENRY DRAPER. July, 1864. 4to., pp. 60, 53 woodcuts. (S. C. XIV.)
181. Review of American Birds in the Museum of the Smithsonian Institution. By S. F. BAIRD. Part I.—North and Middle America. June, 1864—June, 1866. 8vo., pp. 484, 80 woodcuts. (M. C. XII.)
182. Results of Meteorological Observations made under the Direction of the United States Patent Office and the Smithsonian Institution, from the year 1854 to 1859, inclusive, being a Report of the Commissioner of Patents made at the first session of the 36th Congress. Vol. II. Part I. 36th Congress, 1st session. Senate Ex. Doc. 1864. 4to., pp. 546.
183. Check-list of the Invertebrate Fossils of North America. Miocene. By F. B. MEEK. November, 1864. 8vo., pp. 34. (M. C. VII.)
184. Smithsonian Contributions to Knowledge. Vol. XIV. 1865. 4to., pp. 490, 158 woodcuts, 25 plates.

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186. Discussion of the Magnetic and Meteorological Observations made at the Girard College Observatory, Philadelphia, 1840-'41-'42-'43-'44-'45. Fourth section, comprising Parts X, XI and XII. Dip and total force; analysis of the disturbances of the dip and total force; discussion of the solar diurnal variation and annual inequality of the dip and total force; and discussion of the absolute dip, with the final values for declination, dip and force between 1841 and 1845. By A. D. BACHE. April, 1865. 4to., pp. 42, 8 woodcuts. (S. C. xiv.)

187. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1863. 38th Congress, 1st Session. House of Representatives, Mis. Doc. No. 83. 1864. 8vo., pp. 420, 56 woodcuts.

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- 189.** Catalogue of the Orthoptera of North America described previous to 1867. By SAMUEL H. SCUDDER. October, 1868. 8vo., pp. 110. (M. C. VIII.)

- 190.** Queries Relative to Tornados. By JOSEPH HENRY. 8vo., pp. 4, 1 woodcut. (M. C. X.)

- 191.** Smithsonian Miscellaneous Collections. Vol. VII. 1867. 8vo., pp. 878, 813 woodcuts.

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- ✓ 192. Cretaceous Reptiles of the United States. By JOSEPH LEIDY. May, 1865. 4to., pp. 142, 35 woodcuts, 20 plates of 309 figures. (S. C. xiv.)
193. Duplicate Shells Collected by the United States Exploring Expedition under Captain C. Wilkes. 8vo., pp. 4.
194. Land and Fresh-water Shells of North America. Part I.—Pulmonata geophila. By W. G. BINNEY and T. BLAND. February, 1869. 8vo., pp. 328, 723 woodcuts. (M. C. viii.)
195. Discussion of the Magnetic and Meteorological Observations made at the Girard College Observatory, Philadelphia, in 1840-'41-'42-'43-'44-'45. Parts I to XII inclusive. (Nos. 113^{xi}, 121^{xiii}, 132^{xiii}, 162^{xiii}, 175^{xiv}, 186^{xiv}.) 4to., pp. 262, 49 woodcuts.
- ✓ 196. Physical Observations in the Arctic Seas. By ISAAC I. HAYES. Reduced and discussed by Charles A. Schott. June, 1867. 4to., pp. 286, 15 woodcuts, 3 maps, 3 plates. (S. C. xv.)
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200. Check-list of the Invertebrate Fossils of North America, Eocene and Oligocene. By T. A. CONRAD. May, 1866. 8vo., pp. 46. (M. C. vii.)
- ✓ 201. Researches upon the Hydrobiinæ and Allied Forms; chiefly made upon materials in the Museum of the Smithsonian Institution. By WILLIAM STIMPSON. August, 1865. 8vo., pp. 64, 32 woodcuts. (M. C. vii.)
202. Geological Researches in China, Mongolia, and Japan, during the years 1862 to 1865. By RAPHAEL PUMPELLY. August, 1866. 4to., pp. 173, 18 woodcuts, 3 plates of 10 figures, 6 plates of 15 maps. (S. C. xv.)

203. List of Works published by the Smithsonian Institution. January, 1866. 8vo., pp. 12. (M. C. VII.)
204. Results of Meteorological Observations made at Brunswick, Maine, between 1807 and 1859. By PARKER CLEAVELAND. Reduced and discussed by Charles A. Schott. May, 1867. 4to., pp. 60, 8 woodcuts. (S. C. XVI.)
205. Circular Relating to Collections in Archæology and Ethnology. By JOSEPH HENRY. January, 1867. 8vo., pp. 2. (M. C. VIII.)
206. Smithsonian Contributions to Knowledge. Vol. XV. 1867. 4to., pp. 620, 47 woodcuts, 13 plates, 4 maps.

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208. The Gliddon Mummy Case in the Museum of the Smithsonian Institution. By CHARLES PICKERING. June, 1867. 4to., pp. 6, 1 plate. (S. C. XVI.)

209. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1865. 39th Congress, 1st Session, House of Representatives Mis. Doc. No. 102. 1866. 8vo., pp. 496, 139 woodcuts.

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210. Arrangement of Families of Birds, adopted provisionally by the Smithsonian Institution. By S. F. BAIRD. June, 1866. 8vo., pp. 8. (M. C. VIII.)

211. Smithsonian Contributions to Knowledge. Vol. XVI. 1870. 4to., pp. 498, 76 woodcuts, 18 plates.

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213. Smithsonian Miscellaneous Collections. Vol. IX. 1869. 8vo., pp. 914.

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214. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1866. 39th Congress, 2d Session, House of Representatives, Mis. Doc. No. 83. 1867. 8vo., pp. 470, 70 woodcuts.

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215. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1867. 40th Congress, 2d Session, Senate Mis. Doc. No. 86. 1868. 8vo., pp. 506, 10 woodcuts.

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219. Monographs of the Diptera of North America. By R. OSTEN SACKEN. Part IV. 1869. 8vo., pp. 358, 7 woodcuts, 4 plates of 92 figures. (M. C. VIII.)

220. The Indians of Cape Flattery, at the entrance to the Strait of Fuca, Washington Territory. By JAMES G. SWAN. March, 1870. 4to., pp. 118, 44 woodcuts. (S. C. XVI.)

221. The Orbit and Phenomena of a Meteoric Fire Ball, seen July 20, 1860. By JAMES H. COFFIN. May, 1869. pp. 56, 3 woodcuts, 1 map. (S. C. XVI.)

222. Tables and Results of the Precipitation, in Rain and Snow, in the United States, and at some stations in adjacent parts of North America, and in Central and South America. By CHARLES A. SCHOTT. March, 1872. 4to., pp. 178, 8 woodcuts, 5 plates, and 3 double charts. (S. C. XVIII.)

223. The Transatlantic Longitude, as determined by the Coast Survey Expedition of 1866. By BENJAMIN APTHORP GOULD. October, 1869. 4to., pp. 110, 2 woodcuts. (S. C. XVI.)

224. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1868. 40th Congress, 3d Session. House of Representatives, Ex. Doc. No. 83. 1869. 8vo., pp. 474, 40 woodcuts.

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227. Arrangement of the Families of Mollusks. By THEODORE GILL. February, 1871. 8vo., pp. 65. (M. C. x.)

228. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1869. 41st Congress, 3d Session. House of Representatives, Ex. Doc. No. 153. 1871. 8vo., pp. 430, 38 woodcuts, 1 map.

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- h 239. Observations on Terrestrial Magnetism, and on the Deviations of the Compasses of the United States Iron Clad Monadnock during her cruise from Philadelphia to San Francisco, in 1865 and 1866. By WM. HARKNESS. 1872. 4to., pp. 226, 2 woodcuts. (S. C. xviii.)
- h 240. Problems of Rotary Motion presented by the Gyroscope, The Precession of the Equinoxes, and The Pendulum. By J. G. BARNARD. 1872. 4to., pp. 56, 6 woodcuts. (S. C. xix.)
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- h 243. List of Foreign Correspondents of the Smithsonian Institution; corrected to January, 1872. 1872. 8vo., pp. 66. (M. C. x.)
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246. Smithsonian Contributions to Knowledge. Vol. XVIII. 1872. 4to., pp. 646, 10 woodcuts, 5 plates, 3 charts.

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248. On the Geology of Lower Louisiana and the Salt Deposit on Petite Anse Island. By EUGENE W. HILGARD. June, 1872. 4to., pp. 38, 4 woodcuts, 2 plates. (S. C. XXIII.)

249. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1871. 42d Congress, 1st Session. Senate Mis. Doc. No. 149. 1873. 8vo., pp. 473, 3 woodcuts.

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 252. The Mollusks of Western North America. By P. P. CARPENTER.
 December, 1872. 8vo., pp. 446, 4 woodcuts. (M. C. x.)

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253. Land and Fresh Water Shells of North America. Part IV. Streptomatidæ (American Melanians). By GEO. W. TRYON, Jr. December, 1873. 8vo., pp. 490, 871 woodcuts. (M. C. xvi.)

254. Synopsis of American Wasps. Solitary Wasps. By HENRY DE SAUSSURE. December, 1875. 8vo., pp. 430, 4 plates of 31 figures. (M. C. xiv.)

255. The Constants of Nature. Part I. Specific Gravities: Boiling and Melting Points; and Chemical Formulæ. By FRANK WIGGLESWORTH CLARKE. December, 1873. 8vo., pp. 272. (M. C. xii.)

256. Monographs of the Diptera of North America. Part III. By H. LOEW. December, 1873. 8vo., pp. 381, 4 plates of 116 figures. (M. C. xi.)

257. Systematic Index to List of Foreign Correspondents of the Smithsonian Institution. 1872. 8vo., pp. 30. (M. C. x.)

258. Bibliographical Index to North American Botany; or, Citations of Authorities for all the recorded Indigenous and Naturalized Species of the Flora of North America; with a Chronological Arrangement of the Synonymy. Part I. Polypetalæ. By SERENO WATSON. March, 1878. 8vo., pp. 484. (M. C. xv.)

259. Explorations of the Aboriginal Remains of Tennessee. By JOSEPH JONES. October, 1876. 4to., pp. 181, 110 woodcuts. (S. C. xxii.)

260. Regulations of the Smithsonian Institution. January, 1872. 8vo., pp. 41, 1 woodcut.

261. Directions for Collecting and Preserving Insects. By A. S. PACKARD, Jr. 1873. 8vo., pp. 60, 55 woodcuts. (M. C. xi.)
262. An Investigation of the Orbit of Uranus, with General Tables of its Motion. By SIMON NEWCOMB. August, 1873. 4to., pp. 296. (S. C. xix.)
263. Circular of Instructions to Observatories relative to Telegraphic Announcements of Astronomical Discoveries. By JOSEPH HENRY. May, 1873. 8vo., pp. 4. (M. C. xii.)
264. New Species of North American Coleoptera. Part II. By JOHN L. LE CONTE. 1873. 8vo., pp. 74. (pp. 169-240.) (M. C. xi.)
265. Classification of the Coleoptera of North America. Part II. By JOHN L. LE CONTE. June, 1873. 8vo., pp. 72. (pp. 279-348.) (M. C. xi.)
266. On the Structure of Cancerous Tumors and the mode in which Adjacent Parts are Invaded. TONER LECTURE No. I. Delivered March 28, 1873. By J. J. WOODWARD. November, 1873. 8vo., pp. 44. 5 woodcuts. (M. C. xv.)
267. The Haidah Indians of Queen Charlotte's Islands, British Columbia, with a brief description of their Carvings, Tattoo Designs, etc. By JAMES G. SWAN. July, 1874. 4to., pp. 22, 7 plates of 24 figures. (S. C. xxi.)
268. The Winds of the Globe; or, the Laws of Atmospheric Circulation over the Surface of the Earth. By JAMES HENRY COFFIN. The tables completed and maps drawn by S. J. Coffin, with a discussion and analysis of the tables and charts by Alexander Wæikof. December, 1875. 4to., pp. 781, 4 woodcuts, 26 plates of 221 figures. (S. C. xx.)
269. The Sculptures of Santa Lucia Cosumalwhuapa, in Guatemala, with an account of travels in Central America and on the Western Coast of South America. By S. HABEL. 1878. 4to., pp. 94, 8 plates of 25 figures. (S. C. xxii.)
270. Catalogue of the described Diptera of North America. By C. R. OSTEN SACKEN. 1878. 8vo., pp. 324. (M. C. xvi.)
271. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1872. 42d Congress, 3d Session. House of Representatives, Mis. Doc. No. 107. 1873. 8vo., pp. 456, 109 woodcuts.

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- ✓ 272. Smithsonian Contributions to Knowledge. Vol. XIX. 1874. 4to., pp. 640, 6 woodcuts, 21 plates.

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- 273. Smithsonian Miscellaneous Collections. Vol. XI. 1874. 8vo., pp. 790, 55 woodcuts, 4 plates.

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- 274. Smithsonian Miscellaneous Collections. Vol. XII. 1874. 8vo., pp. 767, 86 woodcuts.

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275. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1873. 43d Congress, 1st Session. Senate Mis. Doc. No. 130. 1874. 8vo., pp. 452, 33 woodcuts.

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275. Report for 1873—Continued.

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Royal Academy of Science, Literature, and the Fine Arts, Brussels, Belgium.

Society of Sciences of Haarlem, Holland.

✓ 276. The Constants of Nature. Part II. A Table of Specific Heats for Solids and Liquids. By FRANK W. CLARKE. April, 1876. 8vo., pp. 58. (M. C. XIV.)

✓ 277. Tables, Distribution, and Variations of the Atmospheric Temperature in the United States and some adjacent parts of America. By CHARLES A. SCHOTT. April, 1876. 4to., pp. 360, 10 woodcuts, 2 plates, 3 maps. (S. C. XXI.)

278. Check-list of Publications of the Smithsonian Institution. July, 1874. 8vo., pp. 24.

- ✓ 279. On Strain and Over-action of the Heart. TONER LECTURE No. III. Delivered May 14th, 1874. By J. M. DA COSTA. August, 1874. 8vo., pp. 32, 2 woodcuts. (M. C. xv.)
280. Statement and Exposition of certain Harmonies of the Solar System. By STEPHEN ALEXANDER. March, 1875. 4to., pp. 104, 20 woodcuts. (S. C. XXI.)
281. On the General Integrals of Planetary Motion. By SIMON NEWCOMB. December, 1874. 4to., pp. 40. (S. C. XXI.)
282. A Study of the Nature and Mechanism of Fever. TONER LECTURE No. IV. Delivered January 20, 1872. By HORATIO C. WOOD. February, 1875. 8vo., pp. 50. (M. C. xv.)
283. Catalogue of the Fishes of the East Coast of North America. By THEODORE GILL. 1875. 8vo., pp. 56. (M. C. xiv.)
284. Smithsonian Contributions to Knowledge. Vol. XX. 1876. 4to., pp. 794, 4 woodcuts, 26 plates.

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285. Smithsonian Contributions to Knowledge. Vol. XXI. 1876. 4to., pp. 543, 30 woodcuts, 9 plates, 3 maps.

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286. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1874. 43d Congress, 2d Session. House Doc. No. 56. 1875. 8vo., pp. 416, 46 woodcuts.

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287. The Archaeological Collection of the United States National Museum, in charge of the Smithsonian Institution, Washington, D. C. By CHARLES RAU. 1876. 4to., pp. 118, 340 woodcuts. (S. C. XXII.)

288. The Constants of Nature. First supplement to Part I. Specific Gravities, Boiling Points, and Melting Points. By FRANK W. CLARKE. April, 1876. 8vo., pp. 62. (M. C. XIV.)

289. The Constants of Nature. Part III. Tables of Expansion by Heat for Solids and Liquids. By FRANK W. CLARKE. April, 1876. 8vo., pp. 58. (M. C. XIV.)

290. Circular for Distribution at the Centennial Exhibition, 1876, containing List of Smithsonian Publications and Rules of Distribution; List of Foreign Agents; Number of Foreign and Domestic Institutions in Correspondence; List of Regents, Officers, and Assistants of the Institution. 1876. 12mo., pp. 12.
291. Dual Character of the Brain. TONER LECTURE No. II. Delivered April 22, 1874. By C. E. BROWN-SÉQUARD. January, 1877. 8vo., pp. 26. (M. C. xv.)
292. Check-list of North American Batrachia and Reptilia; with a Systematic List of the Higher Groups, and an Essay on Geographical Distribution based on the specimens contained in the United States National Museum. By EDWARD D. COPE. 1875. 8vo., pp. 108. (M. C. XIII.) *Bulletin of the National Museum No. 1.*
293. Contributions to the Natural History of Kerguelen Island, made in Connection with the American Transit-of-Venus Expedition, 1874-'75. By J. H. KIDDER. I.—Ornithology, by Elliott Coues. 1875. 8vo., pp. 61. (M. C. XIII.) *Bulletin of the National Museum, No. 2.*
294. Contributions to the Natural History of Kerguelen Island, made in connection with the United States Transit-of-Venus Expedition, 1874-'75. By J. H. KIDDER. II.—Oology, Botany, &c. 1876. 8vo., pp. 124. (M. C. XIII.) *Bulletin of the National Museum, No. 3.*

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295. Birds of Southwestern Mexico, collected by Francis E. Sumichrast for the United States National Museum. By GEORGE N. LAWRENCE.

1875. 8vo., pp. 56. (M. C. XIII.) *Bulletin of the National Museum*, No. 4.

296. Catalogue of the Fishes of the Bermudas. Based chiefly upon the collections of the United States National Museum. By G. BROWN GOODE. 1876. 8vo., pp. 84. (M. C. XIII.) *Bulletin of the National Museum*, No. 5.

297. Classification of the Collection to illustrate the Animal Resources of the United States. A List of Substances derived from the Animal Kingdom, with Synopsis of the Useful and Injurious Animals and a Classification of Methods of Capture and Utilization. By G. BROWN GOODE. 1876. 8vo., pp. 140. (M. C. XIII.) *Bulletin of the National Museum*, No. 6.

298. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1875. 44th Congress, 1st Session. Senate Mis. Doc. No. 115. 1876. 8vo., pp. 422, 354 woodcuts.

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299. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1876. 44th Congress, 2d Session. Senate Mis. Doc. No. 46. 1877. 8vo., pp. 488, 73 woodcuts.

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✓ 301. List of Publications of the Smithsonian Institution, July, 1877. 1877 8vo., pp. 72. (M. C. xiv.)

✓ 302. Subcutaneous Surgery, its Principles, and its recent Extension in Practice. TONER LECTURE No. VI. Delivered September 13, 1876. By WILLIAM ADAMS. April, 1877. 8vo., pp. 20. (M. C. xv.)

✓ 303. Contributions to the Natural History of the Hawaiian and Fanning Islands and Lower California, made in connection with the United States North Pacific Surveying Expedition, 1873-'75. By THOS. H. STREETS. 1877. 8vo., pp. 172. (M. C. xiii.) *Bulletin of the National Museum, No. 7.*

303. Natural History of Hawaiian Islands—Continued.

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- ✓ La 305. Contributions to North American Ichthyology. Based primarily on the collections of the United States National Museum. I.—Review of Rafinesque's Memoirs on North American Fishes. By DAVID S. JORDAN. 1877. 8vo., pp. 56. (M. C. XIII.) *Bulletin of the National Museum*, No. 9.
- ✓ La 306. Contributions to North American Ichthyology. Based primarily on the Collections of the United States National Museum. II. A.—Notes on Cottidæ, Etheostomatidæ, Percidæ, Centrarchidæ, Aphoderidæ, Dorysomatidæ, and Cyprinidæ, with revisions of the genera and descriptions of new or little known species. B.—Synopsis of the Siluridæ of the Fresh Waters of North America. By DAVID S. JORDAN. 1877. 8vo., pp. 124, 45 plates of 100 figures. (M. C. XIII.) *Bulletin of the National Museum*, No. 10.
- 307. Report on the Centennial Exhibition, Philadelphia. By S. F. BAIRD. 1877. 8vo., pp. 22.
- ✓ La 308. Contributions to North American Ichthyology, based primarily on the collections of the United States National Museum. III. A.—On the Distribution of the Fishes of the Alleghany Region of South Carolina, Georgia, and Tennessee, with descriptions of new or little known species. By DAVID S. JORDAN and ALEMBERT W. BRAYTON. B.—A Synopsis of the Family Catostomidæ. By DAVID S. JORDAN. 1878. 8vo., pp. 237. (M. C. XXIII.) *Bulletin of the National Museum*, No. 12.
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- La 310. On the Internal Structure of the Earth, considered as affecting the Phenomena of Precession and Nutation; supplementary to article under the above head, Smithsonian Contributions to Knowledge, Vol. XIX, No. 240, being the third of the Problems of Rotary Mo-

tion. By J. G. BARNARD. August, 1877. 4to., pp. 19, 4 woodcuts. (S. C. XXIII.)

311. Index Catalogue of Books and Memoirs relating to Nebulæ and Clusters, etc. By EDWARD S. HOLDEN. November, 1877. 8vo., pp. 126. (M. C. XIV.)

312. Smithsonian Miscellaneous Collections. Vol. XIII. 1878. 8vo., pp. 982, 45 plates. *Bulletins of the National Museum, Nos. 1-10.*

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313. The Flora of St. Croix and the Virgin Islands. By Baron H. F. A. EGGERS. 1879. 8vo., pp. 139. (M. C. XXIII.) *Bulletin of the National Museum, No. 13.*

314. Smithsonian Miscellaneous Collections. Vol. XIV. 1878. 8vo., pp. 911, 4 plates.

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315. Smithsonian Miscellaneous Collections. Vol. XV. 1878. 8vo., pp. 880, 53 woodcuts.

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316. Circular in reference to American Archæology. 1878. 8vo., pp. 15, 38 woodcuts. (M. C. xv.)

317. A Classification and Synopsis of the Trochilidæ. By DANIEL GIRAUD ELLIOT. 1879. 4to., pp. 289, 127 woodcuts. (S. C. xxiii.)

318. On the Remains of Later Pre-historic Man, obtained from Caves in the Catherina Archipelago, Alaska Territory, and especially from the Caves of the Aleutian Islands. By W. H. DALL. 1878. 4to., pp. 44, 10 plates of 39 figures. (S. C. xxii.)

319. Circular of Inquiries relative to the Natural History of the American Crawfish and other Fresh Water Crustacea. 1878. 8vo., pp. 8, 2 woodcuts. (M. C. xv.)

320. Circular relating to Collections of Living Reptiles. 1878. 8vo., pp. 2. (M. C. xv.)

321. The Nature of Reparatory Inflammation in Arteries after Ligatures, Acupressure, and Torsion. TONER LECTURE No. VII. Delivered June 27, 1878. By EDW. O. SHAKESPEARE. March, 1879. 8vo., pp. 74, 7 plates of 11 figures. (M. C. xvi.)

322. Smithsonian Miscellaneous Collections. Vol. XVI. 1880. 8vo., pp. 950, 871 woodcuts, 7 plates.

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323. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1877. 45th Congress, 2d Session. Senate Mis. Doc. No. 35. 1878. 8vo., pp. 500, 49 woodcuts.

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324. Circular relative to Scientific and Literary Exchanges. 1879. 8vo., pp. 2. (M. C. XVI.) Free.

325. Business Arrangements of the Smithsonian Institution. January, 1879. 8vo., pp. 7. (M. C. XVI.) Free.

326. Catalogue of the Collection to illustrate the Animal Resources and the Fisheries of the United States, exhibited at Philadelphia, in 1876, by the Smithsonian Institution and the United States Fish Commission, and forming a part of the United States National Museum. By G. BROWNE GOODE. 1879. 8vo., pp. 367. (M. C. XXIII.) *Bulletin of the National Museum, No. 14.*

327. The Scientific Writings of JAMES SMITHSON. Edited by W. J. RHEES. 1879. 8vo., pp. 166, 32 woodcuts, 1 plate. (Portrait.) (M. C. XXI.)

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328. The Smithsonian Institution. Documents relative to its Origin and History. By WILLIAM J. RHEES. 1879. 8vo., pp. 1027. (M. C. XVII.)

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329. The Smithsonian Institution. Journals of the Board of Regents, Reports of Committees, Statistics, etc. By WILLIAM J. RHEES. 1879. 8vo., pp. 851. (M. C. XVIII.)

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330. Smithson and his Bequest. By WILLIAM J. RHEES. 1880. 8vo., pp. 76, 9 plates. (M. C. XXI.)

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Notice of the city of Washington, in Weld's travels.

331. The Palenque Tablet, in the United States National Museum, Washington, D. C. By CHARLES RAU. 1879. 4to., pp. 90; 2 plates. (S. C. XXII.)

332. Proceedings of the U. S. National Museum for 1878. Vol. I. 1879. 8vo., pp. 524, 8 cuts, 8 plates. (M. C. XIX.)

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332. Proceedings of National Museum. Vol. I—Continued.

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332. Proceedings of National Museum. Vol. I—Continued.

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333. Proceedings of the U. S. National Museum for 1879. Vol. II. 1881. 8vo., pp. 503, 2 wood cuts, 7 plates. (M. C. XIX.)

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333. Proceedings of National Museum. Vol. II--Continued.

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- 334.** List of described species of Humming Birds. By DANIEL GIRAUD ELLIOT. 1879. 8vo., pp. 22. (M. C. XVI.)
- 335.** List of the Principal Scientific and Literary Institutions in the United States, May, 1879. 1879. 8vo., pp. 6. (M. C. XVI.)
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- 339.** A Memoir of Joseph Henry: a Sketch of his Scientific Work. Read before the Philosophical Society of Washington, October 26, 1878. By WILLIAM B. TAYLOR. 1880. 8vo., pp. 225, 1 plate. (Portrait.) (M. C. XXI.)

- 340.** Smithsonian Contributions to Knowledge. Vol. XXII. 1880. 4to., pp. 537, 474 woodcuts, 20 plates.

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- 341.** Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1878. 45th Congress, 3d Session. Senate, Mis. Doc. No. 59. 1879. 8vo., pp. 575, 12 woodcuts.

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342. Contributions to the Natural History of Arctic America, made in connection with the Howgate Polar Expedition, 1877-'78. By LUDWIG KUMLIEN. 1879. 8vo., pp. 179. (M. C. XXIII.) *Bulletin of the National Museum, No. 15.*

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343. Annual Reports of the Secretary of the Smithsonian Institution, JOSEPH HENRY, 1865 to 1877. 1880. 8vo., pp. 548.

344. Check-list of Publications of the Smithsonian Institution, July, 1879. 1879. 8vo., pp. 16. (M. C. XVI.)

345. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1879. 1880. 46th Congress, 2d Session. Senate Mis. Doc. No. 54. 8vo., pp. 631, 216 woodcuts.

CONTENTS.

- BAIRD, S. F. Secretary's report of operations.
 BOARD OF REGENTS, Proceedings of
 Acts and resolutions of Congress relative to the Smithsonian Institution and the National Museum. 45th Congress, 3d Session; 46th Congress, 2d Session. 1878-1880.
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345. Report for 1879—Continued.

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- BROADHEAD, G. C. Prehistoric evidences in Missouri.
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- NUTTER, F. H. Mounds on Gideon's farm, near Excelsior, Hennepin county, Minnesota.
- MASON, O. T. Summary of correspondence of the Smithsonian Institution previous to January 1, 1880, in answer to circular No. 316.
- MASON, O. T. Anthropological investigations during the year 1879.
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346. Smithsonian Contributions to Knowledge. Vol. XXIII. 1881. 4to., pp. 766, 160 woodcuts, 18 plates of 165 figures.

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347. Nomenclature of Clouds. Two lithographic plates. 1851. 8vo.
348. Report on the Fishes of the New Jersey Coast, as observed in the Summer of 1854. By SPENCER F. BAIRD. 1855. 8vo., pp. 40.
349. Suggestions for the Sanitary Drainage of Washington City. TONER LECTURE No. VIII. Delivered May 26, 1880. By GEORGE E. WARING, JR. June, 1880. 8vo., pp. 26.
350. A Map of the Stars near the North Pole; for observations on the Aurora. Copied from the Map used in the Toronto Observations. 1856. 15 inches by 12 inches.
351. On the Distribution of the Forests and Trees of North America; with notes on its Physical Geography. By J. G. COOPER. 1859. 8vo., pp. 36, 1 woodcut.
352. Brief Abstract of a series of six Lectures on the Principles of Linguistic Science. Delivered at the Smithsonian Institution in March, 1864. By WILLIAM D. WHITNEY. 1864. 8vo., pp. 22.
353. Tables and Results of the Precipitation, in Rain and Snow, in the United States, and at some stations in adjacent parts of North America, and in Central and South America. Collected by the Smithsonian Institution, and discussed under the direction of Joseph Henry and Spencer F. Baird, Secretaries. By CHARLES A. SCHOTT. May, 1881. 4to., pp. 269, 8 woodcuts, 5 plates, 5 charts.
354. Essay on the Velocity of Light. By M. DELAUNAY. Translated for the Smithsonian Institution by Alfred M. Mayer. 1864. 8vo., pp. 31.
355. Ozone and Antozone. By CHARLES M. WETHERILL. 1864. 8vo., pp. 12.
356. A Memorial of Joseph Henry. (Published by order of Congress.) 1880. 8vo., pp. 532, 1 plate.

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APPENDIX. Proceedings in Congress regarding the erection of a monument to Joseph Henry.

- 357.** Fever: A Study in Morbid and Normal Physiology. By HORATIO C. WOOD. January, 1878. 8vo., pp. 263, 16 woodcuts, 5 plates of 16 figures. (S. C. XXIII.)
- 358.** The Constants of Nature. Part IV. Atomic Weight Determinations: A Digest of the Investigations published since 1814. By GEORGE F. BECKER. August, 1880. 8vo., pp. 152.
- 359.** A Planisphere of the Visible Heavens, extending to 40° of south declination, for observations on Meteoric displays. Prepared by a Committee of the Connecticut Academy of Arts and Sciences. 1864. 30 inches by 24½ inches.
- 360.** Palafittes, or Lacustrian Constructions of the Lake of Neuchatel By E. DESOR. Translated for the Smithsonian Institution. 1865. 8vo., pp. 53, 118 woodcuts.
- 361.** An account of the Aboriginal Inhabitants of the California Peninsula, as given by JACOB BAEGERT, a German Jesuit Missionary, who lived there seventeen years during the second half of the last century. Translated and arranged for the Smithsonian Institution, by CHARLES RAU. 1865. 8vo., pp. 41.
- 362.** Artificial Shell-deposits in New Jersey. By CHARLES RAU. 1865. 8vo., pp. 6, 1 woodcut.
- 363.** Instructions for collecting Land and Fresh Water Shells. By JAMES LEWIS. 1866. 8vo., pp. 8.

364. Outline of a Systematic Review of the Class of Birds. By W. LILLJEBORG. Translated for the Smithsonian Institution. 1866. 8vo., pp. 16.
365. Notes on the Tinneh or Chepewyan Indians of British and Russian America. 1.—The Eastern Tinneh; by BERNARD R. ROSS. 2.—The Loucheux Indians; by WILLIAM L. HARDISTY. 3.—The Kutchin Tribes; by STRACHAN JONES. Compiled by GEORGE GIBBS. 1866. 8vo., pp. 25, 11 woodcuts.
366. Directions for Collecting, Preserving, and Transporting Specimens of Diatomacea, and other Microscopic Organisms. By ARTHUR M. EDWARDS. 1867. 8vo., pp. 7.
367. Sketch of the Flora of Alaska. By J. T. ROTHROCK. 1867. 8vo., pp. 33.
368. Indian Pottery. By CHARLES RAU. 1867. 8vo., pp. 11, 9 woodcuts.
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370. A Deposit of Agricultural Flint Implements found in Southern Illinois. By CHARLES RAU. 1868. 8vo., pp. 9, 5 woodcuts.
371. The Metric System of Weights and Measures, with Tables. Prepared for the Smithsonian Institution. By H. A. NEWTON. 1868. 8vo., pp. 23.
372. Drilling in Stone without the use of Metal. By CHARLES RAU. 1869. 8vo., pp. 11, 12 woodcuts.
373. Meteorological Stations, and Observers of the Smithsonian Institution, in North America and adjacent Islands, from the year 1849, to the end of the year 1868. 1869. 8vo., pp. 42.
374. Three Rain-Charts of the United States, showing the distribution by Isohyetal lines of the mean precipitation in rain and melted snow. 1, for the Summer months; 2, for the Winter months; 3, for the Year. 1870. 20 inches by 14 inches.
375. Thoughts on the Nature and Origin of Fire. By WILLIAM B. TAYLOR. 1870. 8vo., pp. 19.
376. On the Chemistry of the Earth. By T. STERRY HUNT. 1871. 8vo., pp. 26.
377. The Diamond and other Precious Stones. By M. BABINET. Translated for the Smithsonian Institution, by John Stearns. 1872. 8vo., pp. 33.
378. The Language of the Dakota or Sioux Indians. By F. L. O. RÆHRIG. 1872. 8vo., pp. 19.

- 379.** Eulogy on Prof. Alexander Dallas Bache, late Superintendent of the U. S. Coast Survey, President of the National Academy of Sciences, etc. By JOSEPH HENRY. 1872. 8vo., pp. 28.
- 380.** The Scientific Education of Mechanics and Artizans. By ANDREW P. PEABODY. 1873. 8vo., pp. 13.
- 381.** Temperature-Chart of the United States, showing the distribution, by Isothermal lines, of the mean temperature for the Year. 1873. 16½ inches by 10½ inches.
- 382.** North American Stone Implements. By CHARLES RAU. 1873. 8vo., pp. 16, 7 woodcuts.
- 383.** Archæological Researches in Nicaragua. By J. F. BRANSFORD. 1881. 4to., pp. 100, 202 woodcuts, 2 plates of 40 figures.
- 384.** Circular in reference to Shipping Fresh Fish and other Animals. By S. F. BAIRD. 1881. 8vo., pp. 4.
- 385.** Ancient Aboriginal Trade in North America. By CHARLES RAU. 1873. 8vo., pp. 49.
- 386.** Explanation of the Principles of Crystallography and Crystallophysics. By ARISTIDES BREZINA. Translated for the Smithsonian Institution, by T. Egleston. 1874. 8vo., pp. 36.
- 387.** Three Temperature-Charts of the United States, showing the distribution, by Isothermal curves, of the mean temperature of the lower atmosphere. 1, for the Summer months; 2, for the Winter months; 3, for the Year. 1874. 28½ inches by 19¾ inches.
- 388.** Temperature Chart of the United States, showing the distribution, by Isothermal lines, of the mean temperature for the year. 1874. 20 inches by 13½ inches.
- 389.** An Account of Investigations relative to Illuminating Materials. (From the Light-House Board Report for 1875.) By JOSEPH HENRY. 1881. 8vo., pp. 25.
- 390.** On Tides and Tidal Action in Harbors. By JULIUS E. HILGARD, 1875. 8vo., pp. 22, 15 woodcuts.
- 391.** An act to establish the Smithsonian Institution, etc. Revised Statutes: Title LXXIII. 1875. 8vo., pp. 10.
- 392.** The Prehistoric Antiquities of Hungary. An Address delivered by F. F. ROMER, at the Opening of the International Anthropological Congress, held at Budapest, September, 1876. Translated for the Smithsonian Institution, by Charles Rau. 1877. 8vo., pp. 9.

- ✓ 393. The Mound Builders, and Platycnemism in Michigan. By HENRY GILLMAN. 1874. 8vo., pp. 28, 12 woodcuts. Also, Certain Characteristics pertaining to Ancient Man in Michigan. By HENRY GILLMAN. 1877. 8vo., pp. 13, 13 woodcuts. ✓
- ✓ 394. The Stone Age in New Jersey. By C. C. ABBOTT. 1877. 8vo. pp. 136, 58 plates of woodcuts, containing 223 figures.
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397. The Latimer Collection of Antiquities from Porto Rico, in the National Museum at Washington, D. C. By OTIS T. MASON. 1877. 8vo., pp. 23. 14 plates of woodcuts, containing 60 figures. ✓
398. Short Memoirs on Meteorological Subjects: By Julius Hann; L. Sohncke; Theodore Reye; William Ferrel; A. Colding; and M. Peslin. Compiled and Translated for the Smithsonian Institution by CLEVELAND ABBE. 1878. 8vo., pp. 104.
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- ✓ 406. Henry on Sound. A Summary of Researches in Sound conducted in the service of the United States Light-House Board, by JOSEPH HENRY, during the years 1865 to 1877. 1879. 8vo., pp. 106, 12 woodcuts.

407. Biographical Memoir of Joseph Henry. Prepared in behalf of the Board of Regents. By ASA GRAY. 1879. 8vo., pp. 35.
408. Report of the Secretary of the Smithsonian Institution, for the year 1878. By S. F. BAIRD. 1879. 8vo., pp. 60.
409. Report of the National Museum Building Commission, and of the Architects, for 1879. 1880. 8vo., pp. 18, 2 folding plates.
410. Reports of Astronomical Observatories for 1879. By E. S. HOLDEN. 1880. 8vo., pp. 60.
411. The effect of Irritation of a Polarized Nerve. By B. F. LAUTENBACH. 1880. 8vo., pp. 59.
412. On the Zoological Position of Texas. By EDWARD D. COPE. 1880. 8vo., pp. 55. *Bulletin of the National Museum No. 17.*
413. Exhibit of the Fisheries and Fish Culture of the United States of America, at the Internationale Fischerei Ausstellung, at Berlin, April 20, 1880, and forming a part of the collection of the National Museum, made by the United States Fish Commission. Prepared under the direction of G. BROWN GOODE. 1880. 8vo., pp. 279. *Bulletin of the National Museum, No. 18.*
414. Base Chart of the United States. Prepared by CHARLES A. SCHOTT. 1880. (28½ x 19½ inches.)
415. A Study of the Savage Weapons at the Centennial Exhibition, Philadelphia, 1876. By EDWARD H. KNIGHT. 1880. 8vo., pp. 90, 147 woodcuts.
416. Smithsonian Miscellaneous Collections. Vol. XIX. 1880. 8vo., pp. 1034.

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- ✓ Proceedings of the U. S. National Museum. Vol. I. 1878. No. 332.
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417. Henry as a Discoverer. A Memorial Address, delivered before the American Association for the Advancement of Science, August 26, 1880. By ALFRED M. MAYER. 1880. 8vo., pp. 36.
418. Report of the Secretary of the Smithsonian Institution, for the year 1879. By SPENCER F. BAIRD. 1880. 8vo., pp. 76.
419. Report of the Secretary of the Smithsonian Institution, for the year 1880. By SPENCER F. BAIRD. 1881. 8vo., pp. 88.
420. Anthropological Investigations in 1879. By OTIS T. MASON. 1881. 8vo., pp. 30.
421. Index to Anthropological Articles in Publications of the Smithsonian Institution. By GEORGE H. BEHMER. 1881. 8vo., pp. 10.

422. Nomenclature of North American Birds chiefly contained in the United States National Museum. By ROBERT RIDGWAY. 1881. 8vo., pp. 94. *Bulletin of the National Museum*, No. 21.
423. Smithsonian Miscellaneous Collections. Vol. XX. 1881. 8vo. pp. 846.

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Bulletin of the Philosophical Society of Washington :

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Vol. II, October 10, 1874, to November 2, 1878, pp. 452.

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424. Smithsonian Miscellaneous Collections. Vol. XXI. 1881. 8vo., pp. 773, 42 woodcuts, 13 plates.

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- ✓ 425. Proceedings of the United States National Museum for 1880. Vol. III. 1881. 8vo., pp. 595, 5 cuts, 2 plates.

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425. Proceedings of National Museum. Vol. III—Continued.

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426. A Synopsis of the Scientific Writings of Sir William Herschel. By EDWARD S. HOLDEN and CHARLES S. HASTINGS. 1881. 8vo., pp. 118.

427. Record of Recent Progress in Science, 1879 and 1880. Astronomy. By EDWARD S. HOLDEN. 1881. 8vo., pp. 39.

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430. Record of Recent Progress in Science, 1879 and 1880. Botany. By WM. G. FARLOW. 1881. 8vo., pp. 19.

- ✓ 431. Record of Recent Progress in Science, 1879 and 1880. Zoology. By THEODORE GILL. 1881. 8vo., pp. 62.
- ✓ 432. Record of Recent Progress in Science, 1880. Anthropology. By OTIS T. MASON. 1881. 8vo., pp. 51.
- ✓ 433. Report of a visit to the Luray Cavern, in Page County, Virginia, under the auspices of the Smithsonian Institution, July 13 and 14, 1880. 1881. 8vo., pp. 12, 6 woodcuts.
434. Report of the National Museum Building Commission and of the Architects for 1880. 1881. 8vo., pp. 12.
435. Discussion of the Barometric Observations of E. S. Snell. By F. H. LOUD. 1881. 8vo., pp. 23, 7 woodcuts.
436. List of Periodicals received by the Smithsonian Institution. 1881. 8vo., pp. 9.
437. Check-list of Publications of the Smithsonian Institution to December, 1881. 1881. 8vo., pp. 22.
438. Reports of Astronomical Observatories for 1880. By E. S. HOLDEN and GEORGE H. BÖHMER. 1881. 8vo., pp. 128.
- ✓ 439. Warming and Ventilating Occupied Buildings. By ARTHUR MORIN. Translated for the Smithsonian Institution by Clarence B. Young. 1882. 8vo., pp. 92, 32 woodcuts.
440. Articles on Anthropological Subjects contributed to the Annual Reports of the Smithsonian Institution from 1863 to 1877. By CHARLES RAU. 1882. 8vo., pp. 180, 53 woodcuts.

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Stock in trade of an aboriginal lapidary. From Report for 1877. No. 402.

Observations on a gold ornament from a mound in Florida. From Report for 1877. No. 403.

- ✓ 441. The Constants of Nature. Part V. A Recalculation of the Atomic Weights. By FRANK WIGGLESWORTH CLARKE. 1882. 8vo., pp. 293.
- ✓ 442. Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1880. Forty-sixth Congress, 3d Session, Senate Mis. Doc. No. 31. 1881. 8vo., pp. 782, 13 woodcuts.

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- ✓ 443. Results of Meteorological Observations made at Providence, Rhode Island, extending over a period of forty-five years, from December, 1831, to December, 1876. By ALEXIS CASWELL. 1882. 4to, pp. 40.
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445. Plan of Organization and Regulations of the United States National Museum. By G. BROWN GOODE. 1882. 8vo., pp. 58. Two woodcuts. (*Circular of U. S. National Museum, No. 1.*)
446. Circular addressed to Friends of the Museum. By SPENCER F. BAIRD. 1882. 8vo., pp. 2. (*Circular of U. S. National Museum, No. 2.*)
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463. Bibliography of the Fishes of the Pacific Coast of the United States, to the end of 1879. By THEODORE GILL. 1882. 8vo., pp. 77. (M. C. XXIII.) *Bulletin of National Museum, No. 11.*
464. Directions for Collecting and Preserving Fish. By TARLETON H. BEAN. 1881. 8vo., pp. 6.
465. List of Marine Invertebrates, mainly from the New England Coast, distributed by the U. S. National Museum. Series II. By RICHARD RATHBUN. 1881. 8vo., pp. 6.
466. Directory of Officers, Collaborators, Employés, etc., of the Smithsonian Institution, National Museum, Geological Survey, Bureau of Ethnology, and Fish Commission. 1882. 8vo., pp. 8.
467. Proceedings of the United States National Museum for 1881. Vol. IV. 1882. 8vo., pp. 600, 13 cuts, 2 plates. (M. C. XXII.)

CONTENTS.

BAIRD, S. F. Notes on certain aboriginal shell mounds on the coast of New Brunswick and of New England.

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Description of a new species of *Ptychochilus* (*Ptychochilus Harfordi*) from Sacramento river.

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468. Smithsonian Miscellaneous Collections. Vol. XXII. 1882. 8vo., pp. 1200, cuts 18, plates 4.

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- ✓ Proceedings of the U. S. National Museum. Vol. IV. 1881. No. 467.

469. List of Foreign Correspondents of the Smithsonian Institution. Corrected to January, 1882. 1882. 8vo., pp. 174.

470. Nomenclator Zoologicus. An Alphabetical List of all Generic Names that have been employed by Naturalists for Recent and Fossil Animals from the earliest times to the close of the year 1879. In two parts. Part I.—List of Generic Names employed in Zoology and Paleontology to the close of the year 1879, chiefly supplemental to those catalogued by Agassiz and Marschall, or indexed in the Zoological Record. By SAMUEL H. SCUDDER. 1882. 8vo., pp. 398. *Bulletin of the National Museum*, No. 19.

471. List of Marine Invertebrates from the New England Coast, distributed by the U. S. National Museum. Series III.—Educational Series. By RICHARD RATHBUN. 1881. 8vo., pp. 4.

472. Plans for the Installation of Collections in the U. S. National Museum. By G. BROWN GOODE. 1882. 8vo., pp. 2. (*Circular of U. S. National Museum*, No. 16.)

473. Contributions to the United States National Museum, and their Acknowledgement. 1882. 8vo., pp. 2. (*Circular of U. S. National Museum, No. 17.*)
474. List of Publications of the United States National Museum. 1882. 8vo., pp. 12. (*Circular of U. S. National Museum, No. 18.*)
475. Smithsonian Miscellaneous Collections. Vol. XXIII. 1882. 8vo., pp. 1003. *Bulletins of the National Museum, Nos. 11 to 15.*

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476. First Annual Report of the Bureau of Ethnology to the Secretary of the Smithsonian Institution, 1879-80. By J. W. POWELL, Director. 1881. Royal 8vo., pp. 638. 343 cuts, 54 plates, 1 folded map.

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- 477. Report on International Exchange, with list of Official Publications of the U. S. Government, between 1868 and 1881. By GEORGE H. BÆHMER. 1882. 8vo., pp. 113.
- ↑ 478. Catalogue of Publications of the Smithsonian Institution up to July 1, 1882, with Index to all Articles in the "Smithsonian Contributions to Knowledge," "Miscellaneous Collections," "Annual Reports," "Bulletins and Proceedings of the U. S. National Museum," etc. By WILLIAM J. RHEES. 1882. 8vo., 1882, pp. .

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